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On Naval Actions and Reactions in Limited Warfare

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CONTENTS

1.	INTRODUCTION	1
2.	THREAT POTENTIALS FROM UNALIGNED NATIONS	1
2.1	Threat Potential Categorized by Warfare Mission Area	2
2.2	Threat Potential Categorized by Geopolitical Region	5
3.	THE POLITICOECONOMIC CONTEXT FOR LIMITED WARFARE	5
3.1	Diplomatic Approach	5
3.2	Economic Approach	5
3.3	Military Approach, Major Nation the Persuader	5
3.4	Military Approach, Minor Nation the Persuader	8
4.	DEFINITIONS OF THE DIVERSE LIMITED-WARFARE THREATS	8
4.1	Partial Blockade	8
4.2	Limited Invasion	9
4.3	Evacuation of Personnel at Risk	9
4.4	Persistent Harrassment	9
4.5	Coercion	9
5.	EXAMPLE SCENARIOS OF LIMITED WARFARE	10
5.1	Scenario 1: U.S. Conducts a Partial Blockade	10
5.2	Scenario 2: U.S. Conducts a Limited Invasion	10
5.3	Scenario 3: U.S. Conducts an Evacuation	11
5.4	Scenario 4: U.S. Conducts a Persistent Harrassment	11
5.5	Scenario 5: U.S. Conducts Coercion	12
5.6	Scenario 6: U.S. Counters a Persistent Harrassment	12
5.7	Scenario 7: U.S. Counters an Extortion	12
6.	COMMON THREADS OF THREAT	13
6.1	The Maritime Environment	13
6.2	Economic Considerations	13
6.3	Manpower Considerations	14
6.4	Influence of Arms Resale	14
6.5	NBC Threat	15
6.6	Threat From a Coalition	15
7.	SUMMARY OF THREAT	15

TABLES

1.	Combat Platforms of Unaligned Nations (1990)	3
2.	Summary by Threat Type of Unaligned Nations With Threat Potential	4
3.	Summary by Georegion of Unaligned Nations With Threat Potential	6
4.	Sophistication by Size Classification of Potential Threat	16

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1. INTRODUCTION

Recently, the political scheme of the world changed considerably. This change revises military threats, goals, and tactics, redefining operations against which the efficacy of new systems must be evaluated. But no documentation was found that concerns the new thinking which examines the situation from top political levels down to requirements on the military. Since one of the Systems Analysis Group's functions at the Naval Ocean Systems Center is to assess the operational effectiveness of systems newly conceived or in development, such documentation had to be generated to carry out the work. The comments of people who read a draft of this document lead one to believe that such a report assists others who need guidance in redefining threats to the U.S. Navy and the Navy's required modes of response.

This document provides a high-level assessment of potential military threats from nations unaligned with NATO or the Warsaw Pact, discusses the political and economic underpinnings of contingency and limited objective warfare (CALOW), and defines the nature of politically likely CALOW action. It then provides a number of fabricated scenarios to illustrate these threats. The paper closes by pulling together the common characteristics of these diverse threats and commenting on the requirements on the U.S. Navy in the CALOW environment.

This document does not include an operational evaluation of CALOW roles to assess (a) which could be best done by the Navy versus which by other agencies; (b) of those appropriate to the Navy, which Navy resources in what amounts could best be used; and (c) what new capabilities the Navy should have in order to carry out possible CALOW missions.

The possibility of technically sophisticated total war has threatened the United States for many decades. Now that this threat seems to have reduced somewhat and shows a potential of diminishing greatly, the U.S. military should turn some attention to other sorts of threat, namely, that from nations with much smaller military strength than the U.S. Against such nations, the U.S. needs to know

what threat it is facing, how it might best be countered, how the U.S. military capability could best be used, and perhaps even how it might be restructured. Against such nations, the U.S. would be very constrained by Rules of Engagement (ROEs): it could not unleash its full military might. Of course, the U.S. must make some response in the face of small-level, perhaps continuing, hostile action; and the U.S. is not well equipped to make such response, since its present military capability is designed to respond to major military action by a major foe.

2. THREAT POTENTIALS FROM UNALIGNED NATIONS

The fact that certain nations are our allies or have been our recent opponents should not blind us from an eternal fact: national loyalties depend upon so many complex interacting factors that they can change in short periods. As American examples, we recall that in the 1750s we were with the British against the French and within 20 years with the French against the British; in the 1940s, we were with the Soviets against the Germans and within 10 years allied to the Germans opposing the Soviets. Thus, in a world of rapid political change, it behooves us to be aware of all the categories of response that might be required of the U.S. Navy.

The military threat potentials from NATO aligned nations and from Warsaw Pact aligned nations have been rather well studied by the U.S. Navy. Other nations, not aligned with either, possess some potential for threat, but of a rather different type; this potential has not been a subject of wide study for the Navy. We should look at the strengths in various categories and see where and from whom POTENTIALS for threat exist. However, let me stress that an assessment of military strength in NO WAY implies that the listed nations are considered to be a threat.

Tables 1 through 3 provide information about 47 nations classified as unaligned which have an adequate naval force to list. The classification as "unaligned" was judgmental. The criterion for listing was arbitrarily chosen as having at minimum six combat

fast patrol boats. Almost all data were drawn from the Janes series.

Many unlisted nations could pose some problem in the senses to be discussed below, as also could terrorist or political action groups unaffiliated with a nation. However, there is no point in conjecturing to such fine detail: let it suffice to keep in mind, parallel to the ensuing treatment, that tiny lands or political groups could buy weapons and platforms and pose hostage or similar threats at any time.

Table 1 summarizes platforms/weapons of the 47 nations in the following columns: (1) the presence of land-launched mobile surface-to-surface missiles (SSMs) for coastal defense (landSSM); (2) the presence of air-to-surface missiles (ASMs), under the assumption that their presence implies the capability to loft them; (3) the number of combat fast patrol boats, with the subnumber of those boats capable of SSM launching (designated by "G") following a "/" (FP/FPG); (4) the number of small warships, ie, frigate-size and smaller, with the subnumber of SSM-capable ships following a "/" (\leq FF/FFG); (5) the number of large warships, ie, destroyer-size and larger, with the subnumber of SSM-capable ships following a "/" (\geq DD/DDG); (6) the number of submarines with the subnumber of missile submarines following a "/" (SS/SSG) (India has one nuclear missile-firing submarine; all others are diesel/electric (d/e)); and (7) aircraft carriers (CV). Numbers include those listed by Janes as reserve or under construction; planned platforms are not included. Many of the platforms listed are considered to be not fully operational. The data from which Table 1 was drawn were collated by Rick Epstein and Dan Durrett of NOSC's Code 171.

2.1 THREAT POTENTIAL CATEGORIZED BY WARFARE MISSION AREA

It would be useful to know in what warfare mission areas arising from table 1 the U.S. Navy might be called upon to act. The warfare mission areas (in some cases redefined for unorthodox challenges) for which threat potentials were found were blue water antisurface warfare (Blue-ASUW), anti-

submarine warfare (ASW), and coastal-region warfare (which I will term CRW). CRW is an amalgam of pieces of other warfare mission areas: missile defense against FPGs and against land-based ASM-launching aircraft, surface ships against waves of fast torpedo boats, shallow-water ASW, mine warfare (MW) and mine countermeasures (MCM), special forces action on the coast, and amphibious action.

Threat potentials in these three warfare mission areas (Blue-ASUW, ASW, and CRW) were then cross-classified as a potent threat and a moderately strong threat, and the nations in each category were listed in table 2. (Trivial threats were not listed.)

A potent blue water threat was one from a nation that could field a missile-shooting force in open ocean waters far from home. This means the ability to deploy a surface action group (SAG) with large warships, possibly with an aircraft carrier, or the ability to deploy missile-shooting submarines at sea far from home. There were no moderate deep-sea threats.

A potent undersea threat was taken as the ability to deploy five or more submarines at significant distances. A moderate undersea threat was taken as the ability to deploy 2-4 submarines at sea. The logic was that a nation with five or more might be willing to spend them in traditional submarine warfare, but a nation with fewer would tend to use them only on a one-shot undersea action or only for special missions to make a political point.

A coastal threat (along the coast of the nation involved, not the U.S. coast) was considered as one which could deter U.S. action on that coast or threaten severe losses. A potent threat was taken as one composed of either 10 or more missile-shooting fast coastal boats (or larger) or a combination of land-based mobile missile and ASM launchers. A moderate threat was taken as one of several FPGs, or land-based mobile missile capability, or ASM capability, or a large number (≥ 30) of fast torpedo boats (capable of successive multiple-boat attack waves).

Table 2 lists the nations satisfying each of the criteria.

Table 1. Combat platforms of unaligned nations (1990)

Nation	landSSM	ASM	FP/FPG	≤FF/FFG	≥DD/DDG	SS/SSG	CV
Albania			40			3	
Algeria	x		22/12	7/ 4		3	
Angola			22/ 6				
Argentina	x	x	12	9/ 9	6/ 6	7	1
Bahrain		x	32/ 8				
Bangladesh			26/ 4	3			
Brazil	x	x	8	23/ 9	9/ 1	7	1
Brunei			6/ 3				
Burma			21	4			
Cameroon			3/ 2				
Chile	x		9	6/ 2	8/ 6	4	
China	x	x	897/200	33/28	23/23	108/ 6	
Columbia			12	4/ 4		4	
Congo			9				
Cuba	x		29/18	3		3	
Domin Repub			12	6			
Ecuador			12/ 6	7/ 6	1	2	
Egypt	x	x	44/14	5/ 4	1	12/ 4	
Ethiopia			17/ 4	3/ 1			
Gabon			6/ 3				
India		x	33/12	23/ 9	8/ 8	19/ 1	2
Indonesia			33/ 4	19/ 8		2	
Iran	x	x	19/ 4	5/ 3	3	1	
Iraq	x	x	32/ 7	11/11			
Ivory Coast			6/ 2				
Kenya	x		8/ 6				
Korea, North	x		397/32	3/ 3		21	
Kuwait		x	77/ 8				
Libya	x		56/24	11/10		12	
Malaysia			37/ 8	4/ 2			
Morocco			20/ 4	1/ 1			
Nigeria	x		55/ 6	5/ 3			
Oman			12/ 4				
Pakistan		x	29/ 8	10/ 2	7/ 7	15/ 2	
Peru	x	x	20/ 6	4/ 4	10/ 4	11	
Philippines			85	12			
Qatar			49/ 3				
Saudi Arabia	x	x	14/ 9	8/ 8			
Singapore			24/ 6	6/ 6			
Somalia			11/ 2				
South Africa			12/12	2		3	
Syria	x		20/12			3	
Thailand			66/ 6	15/ 7			
Tunisia			21/ 6				
Venezuela			9/ 9	6/ 6		2	
Viet Nam			55/ 8	9/ 7		1	
Yemen			6/ 6				

(NOTE: Numbers include reserves and construction.)

**Table 2. Summary by threat type
of unaligned nations with threat potential**

TYPE OF THREAT POTENTIAL			
	BLUE WATER	UNDERSEA	COASTAL SURFACE
P o t e n t T h r e a t	CV, SSGN/SSG, and/or CG/DDG	6 or more d/e submarines	10 or more FPGs &/or landSSMs+ASMs
	Argentina Brazil China Egypt India Pakistan Peru	Argentina Brazil China Egypt India Libya N Korea Pakistan Peru	Algeria Argentina Brazil China Cuba Egypt India Iran Iraq Libya N Korea Peru Saudi Arabia S Africa Syria
M o d e r a t e T h r e a t		2-5 d/e submarines	5-9 FPGs or landSSMs or ASMs or ≥ 30 FP
	(none)	Albania Algeria Chile Columbia Cuba Ecuador Indonesia S Africa Syria Venezuela	Albania Angola Bahrain Bangladesh Chile Ecuador Indonesia Kenya Kuwait Malaysia Nigeria Pakistan Philippines Qatar Singapore Thailand Tunisia Venezuela Viet Nam

2.2 THREAT POTENTIAL CATEGORIZED BY GEOPOLITICAL REGION

Of further interest is the segregation of these nations with their type and level of threat into geopolitical ocean regions. Following the same format used in table 2, table 3 breaks that list down into four geopolitical ocean regions: the Mediterranean/Middle East, the Western Pacific/Indian Oceans, Latin America, and Africa.

Although table 3 speaks for itself well enough, a few points might be made:

- The blue water surface threat is neither widespread nor worrisomely strong.
- The submarine threat remains throughout WestPac, an Indian/Middle East axis, and the Med, and is magnified by the quiet of d/e boats.
- A coastal problem could appear worldwide.

Historically, the U.S. has encountered trouble over the passage of ships in coastal waters; for example, off the coast of Libya in the times of the Barbary pirates and recently. The range of land-based mobile SSMS extends up to 90 nmi (the Italian OTOMAT); and much greater ranges offshore are represented by ASMs launched from aircraft. These ranges illustrate that coastal problems need not be constrained to hostilities within the coastal nation itself but could well extend to shipping and transit rights.

3. THE POLITICOECONOMIC CONTEXT FOR LIMITED WARFARE

Often one nation wishes to accomplish something with the cooperation of a second nation, but the second nation, for reasons of its own, declines to cooperate. This "something" could involve dropping trade barriers, releasing political prisoners, the treatment of a nation's citizens or descendants in the other nation, issuing an apology for a perceived insult, et al. A nation has three approaches to persuade the other to cooperate with its goals: diplomatic, economic, and military.

In the context of this paper, the two nations consist of a major nation (eg, the U.S.) and a minor nation. The U.S. could be attempting to persuade the minor nation to cooperate, or a minor nation could be attempting to persuade the U.S. to cooperate.

3.1 DIPLOMATIC APPROACH

It makes little difference which nation is the persuader, since diplomatic efforts consist of either finding a diplomatic incentive (eg, a change in policy affecting the other nation) or shaming the other nation before the world by claiming its lack of cooperation to be immoral. Major nations more frequently have an advantage in the former and minor nations in the latter.

3.2 ECONOMIC APPROACH

A major nation can apply economic pressure on a minor nation by limiting its imports or reducing the market for its exports, either directly or indirectly through pressure on other nations. In contrast, a minor nation is usually in a poor position to apply economic pressure on the major nation. It can do so to some extent if it either can organize an economic consortium sympathetic with its views or has a unique natural resource required by the major nation, but such circumstances are not the usual case. OPEC is one example of such a case, but its partial monopoly on oil was short-lived.

3.3 MILITARY APPROACH, MAJOR NATION THE PERSUADER

When diplomatic and economic approaches fail, military force is considered. A recent case involving military force following the failure of diplomatic and economic measures is the Panama invasion. Throughout history, when the use of military force is deemed necessary, the initiating nation usually either waits for an incident to justify the action or creates one. In recent times, because of international organizations, such as the UN, and because of much improved publicity by independent news organizations, the major nation must be very careful not to crush the

**Table 3. Summary by georegion
of unaligned nations with threat potential**

MEDITERRANEAN AND MIDDLE EAST

Level of Threat Potential	Type of Threat Potential		
	Blue Water	Undersea	Coastal
Potent	Egypt	Egypt Libya	Algeria Egypt Iraq Iran Libya Saudi Arabia Syria
Moderate	(none)	Albania Algeria Syria	Albania Bahrain Kuwait Qatar Tunisia

WEST PACIFIC AND INDIAN OCEANS

Level of Threat Potential	Type of Threat Potential		
	Blue Water	Undersea	Coastal
Potent	China India Pakistan	China India Pakistan N Korea	China India N Korea
Moderate	(none)	Indonesia	Bangladesh Indonesia Malaysia Pakistan Philippines Singapore Thailand Viet Nam

Table 3 (Continued)

LATIN AMERICA

Level of Threat Potential	Type of Threat Potential		
	Blue Water	Undersea	Coastal
Potent	Argentina Brazil Peru	Argentina Brazil Peru	Argentina Brazil Cuba Peru
Moderate	(none)	Chile Columbia Cuba Ecuador Venezuela	Chile Ecuador Venezuela

AFRICA

Level of Threat Potential	Type of Threat Potential		
	Blue Water	Undersea	Coastal
Potent	(none)	(none)	S Africa
Moderate	(none)	S Africa	Angola Kenya Nigeria

minor nation with an extremely disproportionate force ratio, as this "unfairness" would inflame world emotions. Thus, the major nation must use only, say, 1.5 times the strength available to the minor nation and avoid major weapons (eg, nuclear) unavailable to the minor nation. The missions which seem most likely to be required of the U.S. against a minor nation are a partial blockade, a limited invasion, an evacuation of personnel at risk, persistent harassment, and coercion. These missions are examined further in chapters 4 and 5.

3.4 MILITARY APPROACH, MINOR NATION THE PERSUADER

A minor nation, upon the failure of its diplomatic and economic approaches, usually has little option other than to accept the situation; certainly a total military operation against the larger nation would be suicidal. Upon occasion, when the leader of the minor nation is at once very brave and very wily, or alternatively a bit mad, the minor nation may undertake a specialized form of military action. The form of this action most frequently seen in the past has been persistent harassment.

Persistent harassment may sound trivial, but it occurs with the strength of a remarkable advantage for the minor nation:

The minor nation wins by not losing.

The major nation loses by not winning.

The result is straightforward: If the major nation fails to accomplish its goals quickly and with little cost, the minor nation, by just "hanging on", wins a major battle if not the war. If the minor nation can damage the major nation's capital military equipment or take some lives, it has won a battle; the same accomplishment by the major nation wins little. The military rules, formed by political forces, are very different for the two nations.

A second approach by the minor nation is coercion. One method of coercion is ransom, which has a long history. For centuries, nations have been holding captive opponents--kings and armies--for ransom.

While originally used largely for monetary gain, the goal in modern times has become political. Another variation of coercion is extortion, which has recently become feasible with the emergence of super weapons, namely, nuclear, biological, and chemical (NBC) weapons. A very small number of people (suicidally dedicated if necessary) can significantly threaten a major nation by the possibility of serious destruction entirely disproportionate to the number and strength of the generators. For example, a handful of agents or terrorists could use NBC weapons to destroy a large city or demolish a dam, flooding entire valleys and cities. The minor nation would probably disavow any intent of that sort, attributing it to extremist groups over which they purport to exert no control, so that the major nation could not retaliate. These extremist groups would demand political action to the minor nation's advantage or else they would wreak destruction. Ransom and extortion will be examined further under coercion in paragraph 4.5.

4. DEFINITIONS OF THE DIVERSE LIMITED-WARFARE THREATS

4.1 PARTIAL BLOCKADE

In this case, a minor nation has declined to cooperate with the U.S., and the U.S. wishes to persuade it by preventing some substance from entering or exiting the nation or from entering the U.S. If the substance is entering the U.S. against U.S. law, action is legal within U.S. territorial waters without declarations of hostility. An example might be drugs. More generally, the U.S. might wish to limit crucial raw materials or food from entering the minor nation or it might wish to limit exports. If the Navy must act in international waters or the territorial waters of the minor nation, the U.S. must declare war, some sort of hostility, or some requirement for self-defense to permit its action within international law. That being done, however, the Navy has some challenges for which it is not prepared. It must maintain surveillance over an area, determining targets not by "flag" but by content carried. The Navy would most likely have to control the movements of a

target without damaging it. And the Navy would have to be able to justify and document its acts to the satisfaction of international critics. These demands call for special equipment, special training, and, perhaps, different platforms, sensors, and/or weapons.

4.2 LIMITED INVASION

While closer to conventional war, a limited invasion may have characteristics different from those for which the Navy is prepared. For example, perhaps the invasion must be accomplished without damaging large areas of the minor nation, with negligible risk or injury to civilians, and such. Envision an assault on a beach where preliminary shelling, bombing, and disruption of communications are not permitted.

4.3 EVACUATION OF PERSONNEL AT RISK

One way to prevent a minor nation or hostile faction from holding Americans at ransom is to evacuate them with adequate protective force before they can be captured. Again special measures are required: training, equipment, and forms of intelligence not usual to military forces. The U.S. Marine Corps has considered this action to be a potential mission for some time, but has had little call to exercise and, therefore, test its mastery of such situations.

4.4 PERSISTENT HARASSMENT

Persistent harassment has been used by both major nations against minor ones and vice versa. This may be thought of as a military action not large enough to evoke total war on the part of the opponent, but enough to bleed it continually and cause increasing dissatisfaction among its populace, casting the potential settlement back into the political arena. While in the last century and a half the U.S. has been on the receiving end of persistent harassment, there is no reason why it could not have used this tool itself. In fact, small nations or insurgent groups supported by the U.S. have used it (eg, the Contras in Nicaragua).

Persistent harassment is a tool most often used by minor nations against major ones. It proved successful by the fledgling U.S. against England in 1775-81 and more recently by the minor nation of Viet Nam against the French and then against the U.S. Such a strategy of "niggling" requires considerable judgment: the action must be enough to bleed the opponent of will to fight, usually by bleeding men and resources, but not enough to cause the opponent to escalate to major war. An effective propaganda effort shortens the process by creating public opinion hostile to the major nation both on the part of its own citizens and those of neutral nations.

The role of the Navy may be on either side. In defense against niggling, the Navy could operate partial blockades as in paragraph 4.1, limiting, say, arms shipments to the insurgents. As a niggler itself, the Navy might provide reinforcement and resupply (Re-Re) to U.S.-supported insurgents, provide commando raids by seal-type teams, clandestinely sink enemy shipping, and the like.

4.5 COERCION

One form of coercion is the release of person(s) or property in return for a stipulated payment or performance. This act may be used by either a major nation against a minor nation (U.S. freezing of Iranian banking assets) or vice versa (Iran's holding of U.S. embassy personnel). The Navy's role could be so varied that definition is difficult. In defense against this act, the Navy could land rescue teams or harass the opponent. In performing the act, the Navy could transfer or hold people or goods at sea in unknown locations.

Another form of coercion is the cancellation of a destructive threat upon performing the action demanded by the perpetrator. A minor nation could, by means of an unprovably supported terrorist arm, position an NBC device in a major U.S. port, to be released if the U.S. does not take a demanded political action. It could also be used by a major nation, as when the U.S. carried out a demonstration attack on Tripoli and held out the threat of further attacks on Libya if Khaddafi did not cease training and fielding terrorists.

In most cases, such attacks would best be carried out by the Navy. Other Navy roles could be the threat of attacks on the opponent's shipping.

5. EXAMPLE SCENARIOS OF LIMITED WARFARE

5.1 SCENARIO 1: U.S. CONDUCTS A PARTIAL BLOCKADE

Background and setting. A South American nation contains a vicious drug distribution cartel. The cartel is extremely wealthy, probably more than the nation itself, and has few major expenses other than self-survival. The government nominally opposes the cartel, but intelligence reports that so many of national officials and military officers are in the pay of the cartel that national efforts to curtail drug distribution have failed. The cartel distributes large amounts of cocaine to the U.S. and the U.S. has been unsuccessful in stopping it. The president of the nation requests military assistance from the U.S., but will not tolerate U.S. troops being stationed internally. The U.S. decides its only recourse is to conduct a naval and aerial blockade, preventing cocaine from exiting the nation.

Threat and limiting constraints. Due to its wealth and the seriousness with which it takes its business, the cartel maintains a small armed force of mercenaries. Its army and air force are trained by Israelis and its navy by the French. Its army, of unknown strength, but exceeding 1,000 troops, is armed with automatic weapons, mortars, hand-held surface-to-air missiles (SAMs), and perhaps chemical weapons; tanks and other armored vehicles are irrelevant since the terrain is jungle or mountain. Its air force has several executive jets for transporting its product, a few personnel helicopters, and a handful of Phantom jet fighters armed with Sidewinder missiles. Its navy is composed of "lease" rights on a large number of freighters and long-range trawlers, several fast patrol boats armed with SAMs, and possibly conventionally warheaded surface-to-surface missiles. It is rumored to have a coastal submarine (SSC), armament and base unknown. The U.S. is

proscribed from basing troops ashore, although commando raids would not be politically damaging if withdrawn within hours. U.S. forces may not endanger or unduly inconvenience civilians, ashore or at sea. The presence of U.S. forces in the vicinity must be low key, avoiding any hint of "big brother". U.S. units intercepting a vehicle in the nation's territorial space must have a national officer in nominal command, either aboard or in continuous radio contact. (Due to its desire to control fishing, the nation claims a 200-mile territorial limit.)

USN task. The task assigned to the U.S. Navy is to maintain posits and identification on all ships and aircraft leaving the national boundary and report such information to the U.S. Customs, Coast Guard, and Air Force for those units approaching U.S. territory. When notified by intelligence of a high probability of illegal cargo aboard, the Navy is to stop, board, and search ships within the nation's territorial waters and cause suspect aircraft to land for search. When evidence is found, the Navy is to turn control of the guilty vehicle and crew over to the local government. Until and unless evidence is found, the Navy is to treat the arrested personnel with utmost care and respect.

5.2 SCENARIO 2: U.S. CONDUCTS A LIMITED INVASION

Background and setting. North and South X are two lands lying on a mountainous peninsula. North X is a harsh dictatorship with a historic vendetta against South X; South X is relatively freer, a nominal republic, and is allied economically and militarily to the U.S. Due to an incident, real or created, N X crosses the border into S X in a full-scale invasion. The U.S. is constrained by alliance to join S X against the north. The U.S. prepares to invade from the sea far north of the forward edge of the battle area (FEBA). As most of the enemy troops are now farther south, such a movement will draw off forces from the south, and the allies will form a pincer on N X's army.

Threats and limiting constraints. The North X army is its strongest force. Its air force follows, strong and modern for a minor nation,

with fighters, medium bombers, transports, and helicopters, but with little in the way of an airborne early warning (AEW) capability. While its navy is third rate, it is a serious force for inshore and shallow-water coastal operations. It has several diesel-electric submarines, a frigate, a surface-to-surface missile (SSM) frigate, and a very large number of patrol and fast attack craft, some armed with SSMs, many with torpedoes, many with guns, and many large patrols capable of mine laying. The U.S. policy constrains the military to conventional arms, no attacks on civilian targets, and armed conflict only with first and second echelon forces.

USN task. The U.S. Navy must mount a major amphibious landing on the N X coast with sufficient surprise to preclude repositioning northern troops for opposition. The coastal air space, surface waters, and undersea waters must be sanitized and kept clear. The landing must be carried out and re-re must be continuously funneled in afterward.

5.3 SCENARIO 3: U.S. CONDUCTS AN EVACUATION

Background and setting. A small Southeast Asian nation has been taken over by a politico-religious faction famous for its bloody vendettas and genocide. The U.S. is uninvolved, except that its small embassy and a handful of U.S. businessmen are in danger of assassination and must be rescued. The capital is slightly inland, up a navigable river from the coast, surrounded by jungle. The faction will consider any incursion by a small military force as an attack and will "defend" itself; incursion by a large force would be unpolitic.

Threat and limiting constraints. The faction has only foot soldiers with mostly WWII-type weapons. Clusters of such troops are scattered throughout the city. Troops with automatic and anti-armor weapons line the river banks. Some armed patrol boats are rumored to be in the capital harbor. The troops are undisciplined and likely to kill civilians or even prisoners with little cause, so any prolonged show of force is likely to result in a bloodbath of innocents. The U.S. must not only avoid increased danger to Americans before evacuating them, but also avoid insti-

gating a general murderous frenzy.

USN task. The Navy (including the USMC) is charged with rescuing the American contingent with negligible loss of American or civilian life.

5.4 SCENARIO 4: U.S. CONDUCTS A PERSISTENT HARASSMENT

Background and setting. A minor island jungle nation is governed by an enslaving dictator, whose policies are inimical to those of the U.S. Within the nation is a gaggle of insurgents, the Oppos, fighting to overturn the dictator. With limited forces and arms, the Oppos cannot launch a major military offensive but must rely on harassing the government until it capitulates. The U.S. provides some support to the Oppos, partly in hopes they will win, but more to maintain economic pressure on the dictator. The U.S. lands arms and supplies on certain key shallow-water beaches with trails to the Oppos' inland headquarters. However, government forces have begun to attack neutral nations' boats, hired to deliver the supplies during landing operations. These attacks are conducted by fast attack boats armed with anti-armor missiles, machine guns, and small cannon, and capable of torpedo attack if ships are used.

Threat and limiting constraints. The nation has a large number of foot soldiers with modern hand-held weapons (including SAMs); armor would be of little use in the jungle. The government owns some light aircraft, usable for spotting, but not for attack. Its afloat forces consist of a dozen fast attack and patrol craft, armed with small surface-to-surface weapons and hand-held SAMs. The U.S. involvement may be general knowledge, but must not be provable. The U.S. will not engage in armed conflict except in self-defense in international waters or when there is no chance of evidence of U.S. presence.

USN task. The U.S. Navy is tasked to maintain surveillance on approaches to the several possible landing sites and to either interdict the fast attack craft or warn the landing commander in sufficient time to escape. However, this task is to be conducted with no on-scene evidence of U.S. participation.

5.5 SCENARIO 5: U.S. CONDUCTS COERCION

Background and setting. A hostile third-world nation is training, arming, and fielding terrorists who are attacking U.S. targets worldwide. They have bombed a U.S. embassy, held a U.S. airliner and its (international) passengers hostage, attached an explosive to the hull of a U.S.-flag freighter, and threatened clandestine attacks on U.S. Navy ships and shore installations. U.S. lives have been lost, U.S. military effectiveness is threatened, U.S. civilians are threatened, protection costs are becoming excessive, and the U.S. is appearing impotent to other lands. The U.S. has some evidence against this nation, but not a large unequivocal amount. The U.S. knows the location of the terrorist training headquarters in the capital. The U.S. plans an aerial strike on these headquarters, demonstrating to the nation the U.S. capability to destroy targets selectively, and then telling the nation that it will selectively strike targets of increasing value if it does not cease its terrorist acts.

Threat and limiting constraints. The nation has several SAM-armed fast patrol boats, some carrying SSMs, and two SAM-armed frigates. It has a few squadrons of older jet fighters armed with a variety of air-to-air missiles (AAMs) and its capital is surrounded by SAMs, some of them capable of high-altitude. The periphery of the nation, some of it mountainous, is ringed with hand-held SAMs for defense against low-altitude aerial incursion. A U.S. strike must hit and hit only its target, avoiding any serious damage or injury to the civilian populace. The U.S. must maintain its image of superiority by permitting only negligible losses to its own forces.

USN task. The Navy is tasked to carry out the initial strike with carrier-based aircraft and remain prepared to carry out further such attacks as required.

5.6 SCENARIO 6: U.S. COUNTERS A PERSISTENT HARASSMENT

Background and setting. A certain oil-producing land is a desert-by-the-sea and a

close ally of the U.S. Its mortal enemy, with a history of harassing the U.S. when convenient, lies across from our ally separated by a shallow and narrow sea so close to our ally that the entire sea is claimed as territorial waters by both lands. The two nations maintain a sort of low-key war. Recently, the enemy has begun to use diesel-electric submarines to attack the ally's oilers in the sea. The ally has requested U.S. aid to eliminate the undersea threat. The U.S. agrees to assist so long as any action occurs within the ally's territorial waters and so long as an allied officer is aboard during any action as nominal (not de facto) commander to take responsibility.

Threat and limiting constraints. The enemy's afloat combat forces are sparse and antiquated: two Fram II destroyers, nine French-made Combattante fast patrol boats (FPBs), and three German-made 205-class SSCs. On their side, however, is political immunity which protects their forces except when caught red-handed.

USN task. The U.S. Navy's task is to keep its ally's waters safe from a foreign submarine threat. Specifically, the task is to find and track enemy submarines, providing a threat hoped to deter them; and, if they are not deterred, to kill them.

5.7 SCENARIO 7: U.S. COUNTERS AN EXTORTION

Background and setting. A minor nation signed an agreement with the U.S. in 1965 to allow U.S. bases for 99 years. These bases, one for each service, are considered strategically crucial. Recently, a local strongman (hostile to the U.S.) organized a coup, taking over the democratically elected government. He cuts off base power by whimsy, harasses U.S. servicemen off duty and their families, and has declared the agreement void as of 1991; he demands that the U.S. immediately begin a gradual removal of its forces. The U.S. has tried diplomatic appeals and an economic boycott, but to no avail. His aggressive posture burgeons. Finally, he extorts the U.S. with an unacceptable threat: If the U.S. does not begin withdrawing, he will carry out "naval exercises" in the shallow waters outside the U.S. bases' harbor which

will include laying live mines. Since the area is in territorial waters, is not used for international commerce (the U.S. has allowed no one but U.S. Navy ships in the area), and is outside the base-agreement boundary, he is not violating international law. The U.S. decides it must take action which will obviate the threat without armed conflict with the nation, because international feeling is running strongly that the U.S. should not forcibly remain in a host nation where it is not wanted.

Threat and limiting constraints. The nation's navy has access to a large number of fishing trawlers, very efficient for ad hoc mine laying, in addition to 17 patrol craft of various kinds, including fast attack boats. Its air force consists of several aging jet fighter-bombers and a few helicopters. The U.S. Navy may not shoot, shoot near, ram, or otherwise endanger or seem to endanger national units.

USN task. The U.S. Navy must either prevent mining — a daunting task to accomplish without at least a strong risk of armed conflict — or it must find and nullify the mines within hours of their being laid and do so on a continuing basis.

6. COMMON THREADS OF THREAT

These few pages have provided some definitions and illustrations for a variety of types of limited war. One impression likely to come to the reader's mind is the very diversity of potential challenges. The Navy is inexperienced in viewing these worldwide threats which are simultaneously limited and diverse. What are the common threads woven through the threats discussed? What sorts of actions might we take to prepare ourselves for a poorly defined conflict in an unanticipated region on short notice?

An obvious lesson from recent world developments is that we cannot predict who will be an opponent, nor when. Moreover, we cannot assume that we will have the luxury of considerable notice. However, the type of opposition can be anticipated with more confidence.

6.1 THE MARITIME ENVIRONMENT

The U.S. Navy has long considered itself a "blue water navy", preparing to conduct most of its operations in deep-sea areas. However, the navies of most minor nations have not the motive, the capability, nor the training to conduct deep-sea operations far from home shores. Almost all of the scenarios that can be envisioned occur in the minor nation's coastal waters, with a few in U.S. coastal waters. The one exception is the possibility of attacking or harassing U.S. ships at sea, but that is a local action, not involving, for example, planned deployment of aircraft carrier battle groups (CVBGs) nor ocean-wide surveillance in an ASW campaign.

These coastal waters are, for the most part, shallow waters, the continental shelves edging virtually all land masses, varying from harbor depths to 150 meters. It is not a fit operating area for CVBGs nor nuclear-powered submarines. No satisfactory ASW capability exists in such depths, neither the ability to find submarines nor to kill them when found; a single WWII diesel in such waters could be a serious threat to the most sophisticated modern warship. On the other hand, the most likely areas for hostile action are ideal for marine mines, the one major weapon the U.S. is most unequipped to oppose. (The U.S. might well seek aid from its NATO allies; for example Norway, which is perhaps the world's best in coastal patrol boat operations; Belgium, whose navy is almost exclusively devoted to mine counter-measures (MCM); or Germany, with decades of operating SSCs in the at-times-head-deep Baltic Sea.)

6.2 ECONOMIC CONSIDERATIONS

An additional influence on shallow-water operations is the respective cost of operations to the two sides. While the U.S. would undoubtedly have greater economic power than a minor nation opponent, this might not be enough. That is to say, if the U.S. were able and willing to spend 5X the expenditure of the minor opponent, but the opponent could mount "break-even" operations at 0.1X the cost, the U.S. would be at a

great economic disadvantage. This sort of inequality operated in the Viet Nam war. As a specific example, the opponent might threaten the U.S. with a patrol boat the cost of which is less than that of a SSM or torpedo.

6.3 MANPOWER CONSIDERATIONS

Manpower influences two aspects: expenditure of life and type of conflict. As to the first, we note that, while a minor opponent would have less money to spend than would the U.S., it might very well be willing to spend more people. Many minor nations are overpopulated and place little value on human life. The U.S. is becoming ever more loathe to sacrifice American lives in "peacetime". If a minor opponent is willing to spend 10X the lives the U.S. is willing to lose to achieve an objective, they might create a major disaster for the U.S. For example, recall Britain's total loss of in-nation forces in Zululand and again in the Sudan.

As to type of conflict, those modes of threat and fighting which capitalize on manpower are likely to be stressed; and those relying on expensive technology and technical expertise are likely to be minimized. (Some mitigation of this view appears in the next paragraph.) Recall that the Chinese built the Burma Road in 1940 with men and shovels in less time than projected for engineers with bulldozers, steam shovels, and other modern equipment. Manpower-costly preparations, supply movement, and battle are the likely modes. In contrast, U.S. manpower is considered too costly in both money and life value to be spent freely, so the U.S. prefers to use automated equipment. A minor opponent would no doubt exploit any possible advantage of this difference. As a feasible example, an opponent might prefer to carry supplies by hand at night on poorly defined jungle trails, as did the Viet Cong, rather than build roads for mechanized movement. A minor opponent might prefer to fight in mountainous terrain where they can ambush and disappear as did the Yugoslav Partisans against the Germans in the 1940s and the Afghans against the Soviets in the 1970s. As a part of the man-preferred-to-technology approach, we must anticipate the characteristics of historic guerrilla warfare.

6.4 INFLUENCE OF ARMS RESALE

Presently, most of the threat appears to be relatively unsophisticated. The aircraft are often F-4s surplus from larger nations. Patrol boats dominate the navies. Submarines are rare and old.

This picture of exclusively primitive arms is not likely to continue. The Soviet Union has large numbers of redundant modern arms — platforms, weapons, and systems — and has a desperate requirement for wealth inflow. The other Warsaw Pact nations, the NATO European nations, and not least the United States, all suddenly have vast excesses of arms. After both world wars, excess arms were sold at a small fraction of their cost. No matter how careful an advanced nation is about its arms customers, its friends, neutrals, and enemies change with time; nations' internal politics and economics and therefore motivations change; and nations resell to nations who resell again. Considerable amounts of modern arms undoubtedly will find their way into the arsenals of minor nations. We cannot rule out the chance that, a few years hence, the U.S. might be facing a minor third-world nation armed with some up-to-date aircraft, submarines, and surface ships.

The next questions is: Who can operate and maintain these arms? Most minor nations lack practiced technical expertise. As are armaments, experienced military forces are becoming redundant in the advanced nations, which are finding it as hard to absorb large numbers of veterans in normal life as are the veterans to readjust. Doubtless there exists some fraction of veterans who liked what they did and will continue doing it for a fee. Such mercenaries need not be combat troops. Indeed, the better use for most of them would be to maintain and operate the sophisticated platforms and systems rather than fight with an AK-47. Many a naval officer would be tempted to command a modern warship even for a minor nation, rather than sell insurance or sit at an accounting desk for a button factory.

6.5 NBC THREAT

"Nonconventional" weapons, namely, nuclear, biological, or chemical, may not be ruled out as threats. However, some characteristics of the threatening party can be predicted. Any established government which uses or threatens to use NBC weapons against a major nation is subject to retaliation, perhaps in kind, by the injured nation and probably would invoke the censure of the world. Such a government would bring destruction upon itself without accomplishing its objective. It seems clear that a viable NBC threat could come only from a small, independent, quasi-covert group, probably terrorists or fanatics, who could not be located for retaliation in kind. However, the possibility is very real that such a group would use an NBC threat; for example, holding a major city at ransom with a weapon aboard ship in a harbor.

6.6 THREAT FROM A COALITION

The fact that individual threats being discussed in this document come from minor nations in no way implies that the U.S. cannot face a large, serious military threat. In this period of rapid and unpredictable changes in political structures and commitments, one may easily envision a coalition of minor nations, which, having bought advanced arms, combine their forces into a major threat. A credible scenario of this sort could be fabricated for a large part of South America, Africa, or Southeast Asia. While it is doubtful that a combined force from such a coalition would have an efficient command and control system, it still could pose a considerable challenge to the U.S. Navy.

7. SUMMARY OF THREAT

Let us look first at the types of forces the U.S. Navy would require to meet threats that could arise from one or another of the unaligned nations.

- **The Navy would require some large surface units, but not extensive numbers of them.**
- **These units would most likely be required in WestPac or the Mediterranean/Middle East areas.**
- **ASW would still be required,**
particularly in the same regions, but possibly also around South America. However,
 - **ASW would take on a different complexion,**
being concentrated on a smaller, quieter, and, therefore, more elusive threat, and occurring most often near the home waters of the opposing nation. Therefore,
 - **Shallow-water ASW systems and weapons would be mandatory.**

Near the opposing nation's home waters, d/e submarines would be near refueling and weapon resupplying ports and would usually start short missions on full battery, limiting current shallow water detection techniques, such as mast sighting.

- **USN ASW tactics would have to be re-evaluated.**

The most likely and geographically widespread threat would be the smaller nations' coastal defenses. While the U.S. would be physically capable of carrying out missions on any coast it wished,

- **The cost in losses during a coastal incursion would prevent all but the most carefully planned and conducted "surgical strike".**

Let us examine a two-way categorization of the extreme limits of minor nation threat. Along the top of table 4, we class threats as Primitive, by which we intend undisciplined and poorly trained forces with old-fashioned arms, and Advanced, by which

Table 4. Sophistication by size classification of potential threat

	Primitive	Advanced
Small	Bandits	Trained Terrorists
Large	Large Army	Significant Military Force

we intend the opposite. Along the side, we class threats as Small, by which we intend a single nation, politically, economically, and militarily weak; and Large, by which we intend a medium-sized nation or coalition of nations with political standing in the world and a large populace.

In the first square, ie, from a small primitive nation, there is little threat other than from a undisciplined raggle-taggle, which is called Bandits here. An example might be the Riffs in the Atlas Mountains who exact tolls of passers by. This end of the spectrum offers no challenge to the U.S. Navy.

In the square for a large primitive nation is Large Army. In this case, a large populace exists from which to draw troops, but little in the way of advanced platforms, weapons, and systems, which implies negligible naval forces, coastal defenses, or coastal air cover.

- **The U.S. would be called upon to provide Re-Re,**

but there is no maritime threat and only a very minor role for U.S. Navy combat forces.

In the square for a small advanced nation is Trained Terrorists. Here there is, at worst, a small but trained, disciplined, and fanatic group of paramilitary forces with advanced arms and the ability to use them

well. Such forces can move clandestinely into a threat position, making full use of surprise. Even after declaring themselves, they may not be locatable, identifiable, or attackable in any traditional sense. They may threaten warships, commercial ships, key industries or military facilities, or cities from at sea or in a harbor. They may hold hostages.

- **The Navy would be called upon for a unique integration of special forces, intelligence, and traditional platform/systems, interacting with other domestic forces,**

eg, foreign city/state/national police, interpol, U.S. Immigration and Naturalization Service, U.S. and foreign customs services, U.S. Coast Guard, etc.

- **The Navy would have to conduct a variety of covert tasks — offshore and harbor surveillance, short-range through-water or -air communications, movement of troops or arms, etc.**

At the other end of the size spectrum is the fourth square, Significant Military Force, representing a large advanced coalition of nations. A conflict on this level might even reach the status of "a real war", but would not appear much like a conflict as has been envisioned with the Warsaw Pact.

- **The Navy would be in conflict with conventional surface forces bearing SSMs and SAMs (perhaps a multiplicity of low-cost attack platforms), with modern land-based air against U.S. carrier air, with coastal defenses against amphibious operations, and with diesel-electric submarines in a shallow water environment.**

While the demands on the U.S. forces would not be as extensive as in a NATO vs Warsaw Pact war,

- **The Navy might be forced into unpracticed tactics by political constraints on the Rules of Engagement.**

In the entire spectrum from small to large advanced threat, the U.S. faces the opponent's politically derived military advantage:

- **The U.S. loses by not winning while the opponent wins by not losing.**

In most cases, this advantage places the requirement:

- **The U.S. must achieve its military goal swiftly and with negligible losses while markedly constrained by political limitations.**

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13. ABSTRACT (Maximum 200 words) This document provides a high-level assessment of potential military threats from nations unaligned with NATO or the Warsaw Pact in the current world of unstable politics and economics. The physical potential for military threat from unaligned nations is assessed, first by warfare area and then by geographic region. Tables are given showing the strengths of various nations categorized by warfare area and then cross-categorized by geographic region. The political and economic underpinnings of contingency and limited objective warfare (CALOW) are examined. The nature of politically likely low-intensity action is defined, including partial blockade, limited invasion, evacuation of personnel at risk, persistent harassment, and forms of coercion. Seven fabricated scenarios to illustrate these threats are provided. In the first five scenarios, the U.S. is conducting operations of the types listed above respectively; in the last two, the U.S. is countering persistent harassment and extortion. The common characteristics of these diverse threats are pulled together within the framework of the maritime environment, economic and manpower considerations, the influence of arms resales, the NBC threat, and the possibility of a powerful coalition of nations which are not powerful singly. The document closes with comments about the requirements on the U.S. Navy in the CALOW environment.					
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